

What is claimed is:

1. A piezoelectric actuator,
comprising:

a movable member to which a head suspension is fixed;

a fixed member being fixed to a carriage arm;

a plurality of piezoelectric elements being provided between said movable member and said fixed member, said piezoelectric elements being capable of adjusting a position of the head suspension by their deformation; and

an electrode member being provided to a part of said fixed member on which said piezoelectric elements are provided, said electrode member having an electric conductive layer, which is electrically insulated from said fixed member and electrically connected to one of electrodes of each of said piezoelectric elements,

wherein said movable member is adhered on said piezoelectric elements and electrically insulated from the other electrodes of said piezoelectric elements, and

the electric conductive layer of said electrode member and the other electrode of each of said piezoelectric elements are electrically connected to cables, which are provided to the head suspension so as to actuate said piezoelectric elements.

2. The piezoelectric actuator according to claim 1,

wherein the cables of the head suspension are connected to the electric conductive layer of said electrode member and the other electrodes of said piezoelectric elements are connected by wire bonding.

3. The piezoelectric actuator according to claim 1,

wherein a terminal section, to which a flexible printed circuit is connected, is formed at an edge of the head suspension, and said terminal section includes terminals of the cables for actuating said piezoelectric elements.

4. The piezoelectric actuator according to one of claims 1,
wherein surfaces of said piezoelectric elements, which are adhered to said movable member, are coated with insulating layers.

5. The piezoelectric actuator according to one of claims 1,
wherein said piezoelectric elements and said movable member are adhered by an adhesive which includes insulating fillers.

6. The piezoelectric actuator according to one of claims 1,
wherein said fixed member has backup sections, which are formed into L-shape by bending both side edges of a base section of said fixed member.

7. A piezoelectric actuator,
comprising:
a movable member to which a head suspension is fixed;
a fixed member being fixed to a carriage arm; and
a plurality of piezoelectric elements being provided between said movable member and said fixed member, said piezoelectric elements being capable of adjusting a position of the head suspension by their deformation;

wherein said piezoelectric elements are fixed to said fixed member, and one of electrodes of each of said piezoelectric elements is electrically connected to said fixed member,

said movable member is adhered on said piezoelectric elements and electrically insulated from the other electrodes of said piezoelectric elements, and

the other electrode of each of said piezoelectric elements is electrically connected to a cable, which is provided to the head suspension so as to actuate said piezoelectric elements.

8. The piezoelectric actuator according to claim 7,

wherein a terminal section, to which a flexible printed circuit is connected, is formed at an edge of the head suspension, and said terminal section includes terminals of the cable for actuating said piezoelectric elements.

9. The piezoelectric actuator according to one of claims 7,

wherein surfaces of said piezoelectric elements, which are adhered to said movable member, are coated with insulating layers.

10. The piezoelectric actuator according to one of claims 7,

wherein said piezoelectric elements and said movable member are adhered by an adhesive which includes insulating fillers.

11. The piezoelectric actuator according to one of claims 7,

wherein said fixed member has backup sections, which are formed into L-shape by bending both side edges of a base section of said fixed member.

12. A piezoelectric actuator,

comprising:

a movable member to which a head suspension is fixed;

a fixed member being fixed to a carriage arm;

a plurality of piezoelectric elements being provided between said movable member and said fixed member, said piezoelectric elements being capable of adjusting a position of the head suspension by their deformation; and

an electrode member being provided to a part of said fixed member on which said piezoelectric elements are provided, said electrode member having a pair of cable patterns, which are electrically insulated from said fixed member and electrically connected to electrodes of each of said piezoelectric elements so as to actuate said piezoelectric elements, and being extended so as to connect a flexible printed circuit thereto;

wherein said piezoelectric elements are fixed to said electrode member, and one of the cable patterns is electrically connected to one of the electrodes of each of said piezoelectric elements,

said movable member is adhered on said piezoelectric elements, and said movable member is electrically insulated from the other electrode of each of said piezoelectric elements, and

the other cable pattern is electrically connected to the other electrode of each of said piezoelectric elements.

13. The piezoelectric actuator according to claim 12,

wherein terminals of the cable patterns and a terminal section of the head suspension are located on the same side.

14. The piezoelectric actuator according to one of claims 12,

wherein surfaces of said piezoelectric elements, which are adhered to said movable member, are coated with insulating layers.

15. The piezoelectric actuator according to one of claims 12,

wherein said piezoelectric elements and said movable member are adhered by an adhesive which includes insulating fillers.

16. The piezoelectric actuator according to one of claims 12, wherein said fixed member has backup sections, which are formed into L-shape by bending both side edges of a base section of said fixed member.

17. A piezoelectric actuator, comprising:

a movable member to which a head suspension is fixed;

a fixed member being fixed to a carriage arm;

a plurality of piezoelectric elements being provided between said movable member and said fixed member, said piezoelectric elements being capable of adjusting a position of the head suspension by their deformation;

a first electrode member being provided between said fixed member and said piezoelectric elements; and

a second electrode member being provided between said movable member and said piezoelectric elements,

wherein said first electrode member includes a pair of cable patterns, which are electrically connected to electrodes of each of said piezoelectric elements, and terminals, which are formed in a side edge of said fixed member and can be connected to a flexible printed circuit, and

said second electrode includes a terminal, which is electrically connected to one of the cable patterns connected to one of the electrodes of each of said piezoelectric elements when said piezoelectric elements are sandwiched between said first electrode member and said second electrode member.